



Jan-Niklas Runge PhD

BIOINFORMATICIAN · GENOMICS SCIENTIST · DATA SCIENTIST

web janniklasrunge.de

Profile

Bioinformatician with experience in tumor diagnostics, genomic analysis, quality control, database design, and reproducible pipelines. I combine technical depth with biological understanding and clear communication, and I am seeking an industry-facing role in medical research, biotechnology, or cancer genomics.

Skills

Bioinformatics R, Linux / bash, Python, Large-scale genomic data, Biostatistics, Reproducibility, Analysis pipelines, Quality control, Database design, Machine learning, Integration of AI

Relevant work experience

Bioinformatician

University Hospital Zurich

- ANALYZE GENOTYPING ASSAYS TO SUPPORT TUMOR DIAGNOSIS.
- DEVELOP BIOINFORMATICS SOLUTIONS FOR REGULATORY QUALITY CONTROL.
- BUILD DATABASE STRUCTURES FOR RAPID CLINICAL AND QUALITY QUERIES.

2024-05 - present

Postdoctoral Genomics Scientist

University of Strasbourg

- ANALYZED POPULATION-GENOMICS DATA FROM 1,000+ YEAST SAMPLES TO INVESTIGATE TRANSMISSION DISTORTION.
- INTEGRATED PHYLOGENETIC, STRUCTURAL-VARIANT, AND GENE-ONTOLOGY SIGNALS IN A COLLABORATIVE ANALYSIS.

2021-10 - 2024-03

Postdoctoral Genomics Scientist

Max Planck Institute for Evolutionary Biology

- BUILT A HYBRID DE NOVO ASSEMBLY OF A WILD HOUSE MOUSE GENOME WITH A 40 MB REGION CONTAINING FOUR INVERSIONS.
- DEVELOPED A PEDIGREE-INFERENCING PIPELINE USING IDENTITY-BY-DESCENT MEASURES AND MENDELIAN ERRORS.

2021-03 - 2021-08

Doctoral researcher in genomics and data science

Columbia University and University of Zurich

- DEVELOPED LOW-COVERAGE GENOTYPE INFERENCE FOR 10,000+ MICE, ENABLING COST-EFFECTIVE GENOME-WIDE GENOTYPING.
- APPLIED MIXED MODELS, PCA, AND SURVIVAL ANALYSIS TO IDENTIFY BEHAVIOR-GENOTYPE ASSOCIATIONS.
- BUILT AN AGENT-BASED SIMULATION TO INVESTIGATE THE EVOLUTION OF BEHAVIOR IN A SELFISH GENETIC ELEMENT.
- COLLABORATED ACROSS UNIVERSITIES AND COMMUNICATED COMPLEX COMPUTATIONAL RESULTS TO NON-SPECIALIST STAKEHOLDERS.

2016-03 - 2021-02